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DOE-STD-1177-2004  
January 2004

DOE STANDARD

# **EMERGENCY MANAGEMENT FUNCTIONAL AREA QUALIFICATION STANDARD**

DOE Defense Nuclear Facilities Technical Personnel



**U.S. Department of Energy  
Washington, D.C. 20585**

**AREA TRNG**

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**APPROVAL**

The Federal Technical Capability Panel consists of senior U.S. Department of Energy managers responsible for overseeing the Federal Technical Capability Program. This Panel is responsible for reviewing and approving the Qualification Standard for Department-wide application. Approval of this Qualification Standard by the Federal Technical Capability Panel is indicated by signature below.



Roy J. Schepens  
Chairman  
Federal Technical Capability Panel

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### **ACKNOWLEDGMENTS**

The Department of Energy, Nevada Operations Office is the Sponsor for the Emergency Management Qualification Standard. The Sponsor is responsible for coordinating the development and/or review of the Functional Area Qualification Standard by subject matter experts to ensure that the technical content of the standard is accurate and adequate for Department-wide application for those involved in the Emergency Management Program. The Sponsor, in coordination with the Federal Technical Capability Panel, is also responsible for ensuring that the Functional Area Qualification Standard is maintained current.

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**U.S. DEPARTMENT OF ENERGY  
FUNCTIONAL AREA QUALIFICATION STANDARD**

**Emergency Management**

**PURPOSE**

DOE M 426.1-1, Federal Technical Capability Manual, commits the Department to continuously strive for technical excellence. The Technical Qualification Program, along with the supporting Technical Qualification Standards, complements the personnel processes that support the Department's drive for technical excellence. In support of this goal, the competency requirements defined in the Technical Qualification Standards should be aligned with and integrated into the recruitment and staffing processes for technical positions. The Technical Qualification Standards should form the primary basis for developing vacancy announcements, qualification requirements, crediting plans, interviewing questions, and other criteria associated with the recruitment, selection, and internal placement of technical personnel. Office of Personnel Management minimum qualifications standards will be greatly enhanced by application of appropriate materials from the technical Functional Area Qualification Standards.

The Technical Qualification Standards are not intended to replace the OPM Qualifications Standards nor other Departmental personnel standards, rules, plans, or processes. The primary purpose of the Technical Qualification Program is to ensure that employees have the requisite technical competency to support the mission of the Department. The Technical Qualification Program forms the basis for the development and assignment of DOE personnel responsible for ensuring the safe operation of defense nuclear facilities.

**APPLICABILITY**

The Emergency Management Functional Area Qualification Standard establishes common functional area competency requirements for Department of Energy personnel who provide assistance, direction, guidance, oversight, or evaluation of contractor technical activities that could impact the safe operation of DOE's defense nuclear facilities. The technical Functional Area Qualification Standard has been developed as a tool to assist DOE Program and Field offices in the development and implementation of the Technical Qualification Program in their organization. For ease of transportability of qualifications between DOE elements, Program and Field offices are expected to use this technical Functional Area Qualification Standard without modification or additions. Needed additional office/site/facility specific technical competencies should be handled separately. Satisfactory and documented attainment of the competency requirements contained in this technical Functional Area Qualification Standard ensures that personnel possess the requisite competence to fulfill their functional area duties and responsibilities. Office/Facility-Specific Qualification Standards supplement this technical Functional Area Qualification Standard and establish unique operational competency requirements at the Headquarters or Field element, site, or facility level.

## **IMPLEMENTATION**

This technical Functional Area Qualification Standard identifies the minimum technical competency requirements for Department of Energy personnel. Although there are other competency requirements associated with the positions held by DOE personnel, this Functional Area Qualification Standard is limited to identifying the specific technical competencies. The competency statements define the expected knowledge and/or skill that an individual must meet. Each of the competency statements is further explained by a listing of supporting knowledge and/or skill statements.

The competencies identify a familiarity level, a working level, or an expert level of knowledge; or they require the individual to demonstrate the ability to perform a task or activity. These levels are defined as follows:

**Familiarity level** is defined as basic knowledge of or exposure to the subject or process adequate to discuss the subject or process with individuals of greater knowledge.

**Working level** is defined as the knowledge required to monitor and assess operations/activities, to apply standards of acceptable performance, and to reference appropriate materials and/or expert advice as required to ensure the safety of Departmental activities.

**Expert level** is defined as a comprehensive, intensive knowledge of the subject or process sufficient to provide advice in the absence of procedural guidance.

**Demonstrate the ability** is defined as the actual performance of a task or activity in accordance with policy, procedures, guidelines, and/or accepted industry or Department practices.

Headquarters and Field elements shall establish a program and process to ensure that DOE personnel possess the competencies required of their position. That includes the competencies identified in this technical Functional Area Qualification Standard. Documentation of the completion of the requirements of the Standard shall be included in the employee's training and qualification record.

Equivalencies should be used sparingly and with the utmost rigor and scrutiny to maintain the spirit and intent of the TQP. Equivalencies may be granted for individual competencies based upon objective evidence of previous education, training, certification, or experience. Objective evidence includes a combination of transcripts, certifications, and, in some cases, a knowledge sampling through a written and/or oral examination. Equivalencies shall be granted in accordance with the Technical Qualification Program Plan of the office qualifying the individual. The supporting knowledge and/or skill statements, while not requirements, should be considered before granting equivalency for a competency.

Training shall be provided to employees in the Technical Qualification Program who do not meet the competencies contained in the technical Functional Area Qualification Standard. Training may include, but is not limited to, formal classroom and computer-based courses, self-study, mentoring, on the job training, and special assignments. Departmental training will be based upon appropriate supporting knowledge and/or skill statements similar to the ones listed for each of the competency statements. Headquarters and Field elements should use the supporting knowledge and/or skill statements as a basis for evaluating the content of any training used to provide individuals with the requisite knowledge and/or skill required to meet the technical Functional Area Qualification Standard competency statements.

## EVALUATION REQUIREMENTS

Attainment of the competencies listed in this technical Functional Area Qualification Standard should be documented by a qualifying official, immediate supervisor, or the team leader of personnel in accordance with the Technical Qualification Program Plan of the office qualifying the individual.

## CONTINUING EDUCATION, TRAINING, AND PROFICIENCY

DOE personnel shall participate in continuing education and training as necessary to improve their performance and proficiency and ensure that they stay up-to-date on changing technology and new requirements. This may include courses and/or training provided by:

- Department of Energy
- Other government agencies
- Outside vendors
- Educational institutions

Beyond formal classroom or computer-based courses, continuing training may include

- Self Study
- Attendance at symposia, seminars, exhibitions
- Special assignments
- On-the-job experience

A description of suggested learning proficiency activities and the requirements for the continuing education and training program for Emergency Management personnel are included in Appendix A of this document.

## DUTIES AND RESPONSIBILITIES

The following are the typical duties and responsibilities expected of personnel assigned to the Emergency Management Functional Area:

1. Communicate with Headquarters, Field elements, regulatory agencies, international, Federal, State, tribal, and local emergency response organizations, and the public.
2. Inform and advise the Department of Energy community of emergency management program status, activities, and issues.
3. Plan, observe and evaluate emergency management activities and Federal and contractor technical performance to ensure the adequacy, effectiveness, and compliance with Department of Energy (DOE) Order 151.1B and other DOE Orders and Federal regulations.
4. Review, and/or approve emergency management documentation.
5. Serve as a Department of Energy technical point-of contract and/or subject matter expert for emergency management activities.
6. Facilitate the notification and reporting of emergencies under Department of Energy (DOE) Order 151.1B Comprehensive Emergency Management System.

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7. Participate in developing, negotiating, and managing agreements, including memorandum of agreement (MOA) and memorandums of understanding (MOU).
8. Resolve, or facilitate the resolution of, emergency management issues.
9. Respond to and participate in facility, site, or local emergency events/exercises and serve as the Department of Energy presence for emergency activities, exercise or operations.
10. Recommend the mobilization of Department of Energy emergency response assets, as appropriate.
11. Support the development, implementation, and evaluation of emergency plans.

Additional duties and responsibilities specific to the site, facility, operational activities, and/or other involved organizations shall be contained in the Facility-Specific Qualification Standard(s).

Position-specific duties and responsibilities for Emergency Management personnel are contained in their Office/Facility-Specific Qualification Standard or Position Description.

## BACKGROUND AND EXPERIENCE

The U. S. Office of Personnel Management's Qualification Standards Handbook establishes minimum education, training, experience, or other relevant requirements applicable to a particular occupational series/grade level, as well as alternatives to meeting specified requirements.

The preferred education and experience for Emergency Management personnel is:

1. Education: Bachelor of Science degree in engineering, physical science, or other related technical discipline; or meet the alternative requirements specified in the Qualification Standards Handbook for the GS-0800, Professional Engineering Series, the GS-1300 Series, Physical Scientist or GS-0301, Emergency Management Specialist.
2. Experience: Industrial, military, Federal, State or other directly related background that has provided specialized experience in emergency management, emergency response, hazardous materials, industrial safety, regulatory compliance, industrial or facility operations, and/or quality assurance. Specialized experience can be demonstrated through possession of the competencies outlined in this Standard.

## REQUIRED TECHNICAL COMPETENCIES

The competencies contained in this Standard are distinct from those competencies contained in the General Technical Base Qualification Standard. All Emergency Management personnel must satisfy the competency requirements of the General Technical Base Qualification Standard prior to or in parallel with the competency requirements contained in this Standard. Each of the competency statements defines the level of expected knowledge and or skill that an individual must possess to meet the intent of this Standard. The supporting knowledge and/or skill statements further describe the intent of the competency statements.

**Note:** When regulations, Department of Energy directives, or other industry standards are referenced in the Qualification Standard, the most recent revision should be used.

[Competencies should represent the minimum technical competencies that a qualified individual in the subject matter of the standard is required to perform. Generally, competencies do not include

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non-technical competencies and should not be defined as those needed to obtain basic education in the subject matter of the standard. In contrast, competencies are defined as those an individual in the functional area must possess to ensure that DOE defense nuclear facilities and programs are operated in accordance with applicable safety, health, and environmental requirements. Competencies from the General Technical Base Qualification Standard should not be repeated unless the level of knowledge is being raised, e.g. from familiarity level to working level.]

## **General Technical**

- 1. Emergency management personnel shall demonstrate a familiarity level knowledge of the relationship of other disciplines to the emergency management function and the ability to work with personnel in these other disciplines.**

### Supporting Knowledge and/or Skills

- a. Explain the roles and responsibilities of each of the following disciplines to emergency management:

- Integrated Safety Management
- Health Physics
- Environmental Transport & Diffusion (air and water)
- Industrial Hygiene
- Chemistry
- Biology
- Worker and Public Health & Safety
- Hazardous Material (storage, handling, & transport)
- Criticality Safety
- Explosives Safety
- Environmental Protection
- Detection & Monitoring (radiological and non-radiological)
- Consequence Assessment (models & codes)
- Protective Measures (personal protective equipment, sheltering, decontamination, evacuation, & relocation)
- Fire Protection/Fire Suppression Operations
- Operations & Maintenance
- Security
- Law Enforcement
- Medical
- Public Affairs
- Legal

- 2. Emergency management personnel shall demonstrate a working level knowledge of hazardous material safety to oversee emergency activities and to provide guidance in mitigating emergencies.**

### Supporting Knowledge and/or Skills

- a. Discuss the concerns associated with the use of hazardous materials.
  - b. Discuss the general safety precautions necessary for the handling, storage, and disposal of hazardous materials, to include explosive, flammable and combustible substances.

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- c. Describe the types, uses, and limitations of chemical detection and monitoring equipment.
  - d. Demonstrate the proper use of portable air sampling equipment.
  - e. Discuss the emergency procedures associated with accidental releases of hazardous materials to the environment, including notifications, protective equipment, decontamination activities, and emergency rescue and treatment.
  - f. Discuss the information resources associated with hazardous material releases that are available to emergency responders.
3. **Emergency management personnel shall demonstrate a working level knowledge of health physics and radiation protection to oversee emergency activities and provide guidance in mitigating emergencies.**

Supporting Knowledge and/or Skills

- a. Discuss the fundamentals of radiation protection as related to emergency response to various scenarios.
  - b. Discuss the emergency exposure recommendations of 10 CFR 835 Subpart N.
  - c. Describe the relationship between dose and radiological injury.
  - d. Discuss the following terms and concepts: uptake, biological half-life, intake, contamination, exposure, and criticality.
  - e. Describe the types, uses, and limitations of radiation detection and monitoring equipment.
  - f. Demonstrate the proper use of portable survey instruments and air samplers.
  - g. Discuss the emergency procedures associated with radiological releases to the environment, including notifications, protective equipment, decontamination activities, and emergency rescue and treatment.
  - h. Discuss the general safety precautions necessary for the handling, storage, and disposal of radioactive material.
4. **Emergency management personnel shall demonstrate a working level knowledge of protective measures.**

Supporting Knowledge and/or Skills

- a. Discuss the types, uses, and limitations of personal protective equipment (PPE).
- b. Demonstrate proper donning and doffing of chemical or radiological emergency response PPE.
- c. Discuss the concepts of sheltering, evacuation, and relocation.
- d. Discuss the role of Protective Action Guides, Emergency Response Planning Guides, Temporary Emergency Exposure Limits (TEELs), Protective Action Criteria (PACs), and Emergency Response Guide (ERG) in emergency planning and response.

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- e. Discuss protective actions and their effectiveness with regard to hazards and events.
  - f. Discuss protective action recommendations with regard to general public implementation.
- 5. Emergency management personnel shall demonstrate a working level knowledge of agency response to an emergency.**

Supporting Knowledge and/or Skills

- a. Discuss the concept of Emergency Public Information and the role of the Joint Information Center in disseminating information to the Public in an emergency.
- b. Discuss the use and implementation of Memorandums of Agreement/Understanding with off-site agencies and the effect on emergency planning and response.
- c. Discuss the role of the Protective Force in response to an emergency.
- d. Discuss the medical needs in response to an emergency.
- e. Using a facility exercise scenario, develop a Protective Force deployment plan for the event. Discuss the plan with the Protective Force management.
- f. Using a facility exercise scenario and the site medical emergency response plans, develop potential casualties and triage issues for the event. Discuss with the site medical staff.

- 6. Emergency management personnel shall demonstrate a familiarity level knowledge of the concepts associated with atmospheric transport and diffusion and environmental protection.**

Supporting Knowledge and/or Skills

- a. Discuss wind speed, wind direction, and stability as related to emergency assessment and response.
- b. Describe the concepts of concentration and deposition and their relationship to emergency planning and response.
- c. Define the terms ground water, surface water, and aquifer and discuss transport and diffusion in these media in the context of emergency planning and response.
- d. Discuss the concepts of ecosystem and habitat in the context of environmental protection as part of emergency planning and response.
- e. Describe the role of the consequence assessment process, including the use of modeling techniques and computer codes and the integration of monitoring information.
- f. Demonstrate basic thumb rule-type calculations to estimate the distance from an atmospheric chemical or radiological release that respiratory protection would be required.

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**7. Emergency management personnel shall demonstrate a working level knowledge of command and control during an emergency.**

Supporting Knowledge and/or Skills

- a. Discuss the concept and define the components of the Incident Command System in the context of on-site and off-site emergency response.
- b. Describe the relationship of incident command to incident mitigation.
- c. Describe the relationship of the Incident Commander to the facility/site emergency response organization.
- d. Describe how the transfer of command should occur between facility/site emergency response organizations.
- e. Describe how the transfer of command should occur between shifts at the incident command post and at the emergency operations center(s).
- f. Discuss the training needed for incident commanders and the managers of the emergency response organization.
- g. Describe the relationship and regulatory authority(ies) of the on-site emergency organization to those of local, state, and tribal emergency response organizations.
- h. Explain the roles and responsibilities of the Shipper, Carrier, and Receiving Organization for transportation accidents.

**8. Emergency management personnel shall demonstrate a familiarity level knowledge of decontamination procedures.**

Supporting Knowledge and/or Skills

- a. Describe the equipment and layout required for a decontamination area.
- b. List the basic methods of decontamination and when they would be applicable.
- c. Describe the decontamination process for chemically- or radioactively-contaminated personnel.
- d. Demonstrate the ability to physically locate decontamination equipment at a facility or site and to contact appropriate personnel to set up a decontamination area.

**9. Emergency management personnel shall have a familiarity level knowledge of emergency rescue and treatment.**

Supporting Knowledge and/or Skills

- a. Discuss the field treatment and transportation requirements for badly injured personnel.
- b. Discuss the use and implementation of Memorandums of Agreement/Understanding with off-site medical facilities and the effect on emergency planning and response.
- c. Explain the priorities for treatment of radioactively-contaminated, injured personnel.

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- d. Explain the priorities for treatment of chemically-contaminated, injured personnel.
  - e. Demonstrate the ability to physically locate rescue or treatment equipment at a facility or central station.
- 10. Emergency management personnel shall demonstrate a working knowledge of the integration/interface of the following types of emergency plans:**
- Site emergency plans
  - Facility emergency plans
  - Building emergency plans
  - Security emergency plans
  - Spill prevention, containment and countermeasure plans
  - Fire prevention/suppression plans
  - Other worker safety plans
  - Local, state, and tribal emergency plans
- Supporting Knowledge and/or Skills
- a. Describe the typical content and applicability of each of the emergency plans listed above.
  - b. Describe the integration/interface of the listed plans.
  - c. Describe the roles and responsibilities of the on-site and off-site emergency response organizations identified in the above emergency plans.
  - d. Demonstrate the ability to physically locate and use emergency response checklists for a facility.
- 11. Emergency management personnel shall demonstrate a working level knowledge of the relationships of emergency planning, preparedness, readiness assurance, response, and recovery.**
- Supporting Knowledge and/or Skills
- a. Discuss the relationships of emergency planning, preparedness, readiness assurance, response, and recovery.
  - b. Define recovery and reentry, and describe the typical contents of recovery and reentry plans.
  - c. Discuss the roles and responsibilities of the Departmental organizational elements in developing recovery and reentry plans.

### **Regulatory**

- 12. Emergency management personnel shall demonstrate an expert level knowledge of DOE Order 151.1B, Comprehensive Emergency Management System and the DOE 151.1 Guides.**
- Supporting Knowledge and/or Skills
- a. Describe the purpose of the Order.

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- b. Discuss the general roles and responsibilities of the departmental elements for management of the Department's Emergency Management System.
- c. Define "Operational Emergencies" and the circumstances to which they apply.
- d. Discuss the Department's approach to managing Operational Emergencies.
- e. Review and comment on appropriate plans and procedures for timely and accurate determination of emergency classification, notification and reporting of emergency events.
- f. Discuss the concept of "commensurate with hazard."
- g. Discuss the purpose and function of each of the following required program elements:
  - Hazards surveys
  - Emergency planning hazards assessments
  - Existing plans
  - Emergency response organization
  - Offsite response interfaces
  - Emergency Categorization
  - Communications
  - Consequence assessment
  - Protective actions
  - Medical support
  - Public information
  - Emergency facilities and equipment
  - Program administration
  - Training and drills
  - Exercises
  - Response
  - Termination and recovery
  - Evaluations and Readiness Assurance

**13. Emergency management personnel shall demonstrate familiarity-level knowledge of the capabilities of the Department of Energy National Response Assets.**

Supporting Knowledge and/or Skills

- a. Discuss the purpose and capabilities of the Accident Response Group.
- b. Describe the purpose and capabilities of the Nuclear Emergency Support Team.
- c. Discuss the purpose and capabilities of the Radiological Assistance Program.
- d. Describe the purpose and capabilities of the Aerial Measurement System.
- e. Discuss the purpose and capabilities of the Federal Radiological Monitoring and Assessment Center.
- f. Describe the purpose and capabilities of the National Atmospheric Release Advisory Center (NARAC).

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- g. Discuss the purpose and capabilities of the Radiological Emergency Assistance Center/Training Site.
  - h. Using facility exercise scenarios, simulate requesting appropriate National Response Asset assistance for various events.
  - i. Describe the roles and responsibilities of the Department in support of the Federal Response Plan, the Federal Radiological Emergency Response Plan, the National Contingency Plan, and the National Response Plan (NRP) referred to in Homeland Security Presidential Directive/HSPD-5.
- 14. Emergency management personnel shall demonstrate an expert level knowledge of the notification and event classification requirements in Department of Energy (DOE) Order 151.1B.**
- Supporting Knowledge and/or Skills
- a. Define the categories and classes of emergency events.
  - b. Define and discuss the notification requirements for the reporting of emergency events.
  - c. Discuss the maximum time frame to make notifications (initial and follow-up) to offsite-facility (HQ, State, local, etc.) agencies after an emergency has been declared. Include in this discussion a description of the priorities for making these notifications.
  - d. Discuss the reasons for making initial and follow-up notifications to off-site agencies.
  - e. For various credible emergencies at a facility, simulate making required internal and external notifications using applicable checklists.
- 15. Emergency management personnel shall demonstrate a working level knowledge of the following guidelines sufficient to apply them to emergency management activities.**
- Emergency Response Planning Guidelines (ERPGs)
  - Protective Action Guides (PAGs)
  - Temporary Emergency Exposure Limits (TEELs)
  - Protective Action Criteria (PACs)
  - Emergency Response Guidebook (ERG)
  - DOE Manual 460.2-1, Radioactive Material Transportation Practices Manual

Supporting Knowledge and/or Skills

- a. Discuss the development and implementation of ERPGs, PAGs, TEELs, PACs, and the ERG and alternatives to use where they do not exist.
- b. Discuss the relationship between the Emergency Response Planning Guidelines and the Protective Action Guides.
- c. Discuss the philosophy of Emergency Action Levels (EALs), both symptomatic and event-based, that are required by DOE Order 151.1B.

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- d. Discuss the basis for determining the event classification using Emergency Action Levels.

### **Management, Assessment, and Oversight**

- 16. Emergency management personnel shall demonstrate a working level knowledge of the development, review, and/or approval of emergency management planning documents.**

#### Supporting Knowledge and/or Skills

- a. Discuss the purpose and function of the emergency plan implementation procedures.
- b. Discuss the expected content of and processes used for the development, review and approval of the following documents:
  - Exercise packages
  - Exercise after action reports
  - Hazard surveys
  - Hazard assessments
  - Self-assessments
  - Exercise corrective action plans
  - Emergency Readiness Assurance Plan
- c. Describe the process for developing and submitting corrective action plans in response to evaluation and appraisal findings.
- d. Demonstrate the ability to integrate the results of safety basis documentation (such as Documented Safety Analyses, Safety Analysis Reports, Hazard Analysis Reports, Fire Hazard Analyses, and Environmental Impact Statements) into emergency management planning documentation and vice versa.

- 17. Emergency management personnel shall demonstrate a working level knowledge of the process for planning, conducting, and evaluating emergency response exercises.**

#### Supporting Knowledge and/or Skills

- a. Describe the process for planning emergency response exercises.
- b. Describe the process for conducting an emergency response exercise, including the "players" and "controllers" organizations and the opportunity for post-event critiques.
- c. Describe the process for internal and external evaluation of emergency response exercises, including the development or response to findings.
- d. Perform one of the following activities related to emergency drills, exercises, or events:
  - In accordance with the Emergency Management Guides, act as an evaluator or exercise controller during an exercise.
  - Serve as a member of an exercise planning group.
  - Serve as a member of a scenario development group for an exercise.

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- Lead an exercise post event critique.
  - Coordinate the writing of an exercise after action report responding to objectives that were both met and not met.
- e. Discuss the definitions and uses of drills and exercises. Discuss the role of players, controllers, and evaluators with respect to conduct and safety.
- f. Discuss the bounds and limitations of free play in regards to an exercise.
- g. Discuss the responsibilities for safety during an exercise. Explain how safety is built into an exercise and how it is maintained during performance.
- 18. Emergency management personnel shall demonstrate a familiarity level knowledge of contract management as it relates to emergency management.**
- Supporting Knowledge and/or Skills
- a. Describe the role of emergency management personnel in contractor oversight.
  - b. Identify the key elements and features of an effective Department of Energy and operating contractor relationship.
  - c. Discuss the "fee-based" evaluation process. Include the development of performance criteria, conduct of the evaluation, and documentation and transmittal requirements for performance.
- 19. Emergency management personnel shall demonstrate a working level knowledge of Integrated Safety Management System assessment techniques to include the planning and use of observations, interviews, and document reviews to assess Department of Energy (DOE) and facility performance, report results of assessments, and follow-up on actions taken as the result of assessments.**
- Supporting Knowledge and/or Skills
- a. Describe the assessment requirements and limitations associated with the emergency management personnel interface with contractor employees.
  - b. Explain the essential elements of a performance-based assessment including the areas of investigation, fact-finding, and reporting.
  - c. Describe the methods by which noncompliance is determined and communicated to contractor and Department management.
  - d. Describe the contents of an assessment report.
  - e. Using the findings from an assessment, develop an assessment report.
  - f. Explain the significance of each of the following assessment-related activities:
    - Exit interviews
    - Closure process
    - Tracking to closure
    - Follow-up
    - Corrective action plans

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- g. Review Emergency Management items in a facility corrective action program. Follow up on two items to verify continued correction.

## APPENDIX A CONTINUING EDUCATION, TRAINING AND PROFICIENCY PROGRAM

The following list represents suggested continuing education, training, and other opportunities that are available for DOE personnel after completion of the competency requirements in this technical Functional Area Qualification Standard. It is extremely important that personnel involved with this program maintain their proficiency through continuing education, training, reading, or other activities such as workshops, seminars, and conferences. The list of suggested activities was developed by the Subject Matter Experts involved in the development of the Functional Area Qualification Standard and is not all-inclusive.

### **LIST OF CONTINUING EDUCATION, TRAINING, AND OTHER ACTIVITIES**

Emergency Management personnel shall participate in an Office/Facility-specific continuing training and qualification program that includes the following elements:

1. Participation in continuing technical education and/or training covering topics directly related to the emergency management area, as determined appropriate by management. This may include courses/training provided by Department of Energy, other government agencies, outside vendors, or local educational institutions. Continuing training topics should also address identified weaknesses in the knowledge or skills of the individual personnel.
2. Active performance of the duties of an Emergency Management specialist at a Department of Energy facility for a minimum of 160 hours per year.
3. Attendance at seminars, symposia, or technical meetings related to Emergency Management.
4. Self-study of new regulations, requirements, or advances related to Emergency Management.
5. Participation in, control, and/or evaluation of a practical exercise related to Emergency Management.
6. Participation in assessment of an emergency management program.
7. Documentation of specific continuing training requirements in Individual Development Plans.
8. EOTA Training Courses.
9. FEMA Independent Study Courses.

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**CONCLUDING MATERIAL**

**Review Activity:**

DP-NNSA  
EH  
EM  
NE  
NN-NNSA  
SC  
FE

**Preparing Activity:**

DOE-EH-22

**Project Number:**

TRNG-0036

**Field and Operations Offices**

AL  
CH  
ID  
Fernald  
NV  
OAK  
OH  
OR  
RF  
RL  
SF  
SR  
Carlsbad Field Office (CBFO)  
Office of River Protection

**Area Offices**

Amarillo Area Office  
Argonne Area Office  
Brookhaven Area Office  
Fermi Area Office  
Kirtland Area Office  
Los Alamos Area Office  
Princeton Area Office  
Rocky Flats Area Office  
Y-12 Area Office